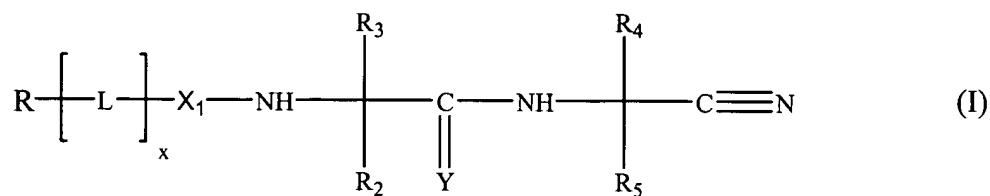


IN THE CLAIMS

The status of each claim in the application is listed below.

Claims 1-20: Canceled.

Claim 21 (New): A compound of formula (I):



wherein

R is substituted aryl selected from 4-(morpholin-1-yl)-phen-1-yl, 4-(morpholin-1-yl-methyl)-phen-1-yl, 4-(pyrrolidin-1-yl-methyl)-phen-1-yl, 4-(4-methylpiperazin-1-yl)-phen-1-yl and 4-(piperidinyl)-phenyl;

R₂ and R₃ are, independently, hydrogen or lower alkyl; or

R₂ and R₃, together, represent lower alkylene, optionally interrupted by O, S or NR₆, so as to form a ring with the carbon to which they are attached, and R₆ is hydrogen, lower alkyl or aryl-lower alkyl;

R₄ and R₅ are, independently, hydrogen or lower alkyl; or

R₄ and R₅, together, represent lower alkylene, optionally interrupted by O, S or NR₆, so as to form a ring with the carbon atom to which they are attached, and R₆ is hydrogen, lower alkyl or aryl-lower alkyl;

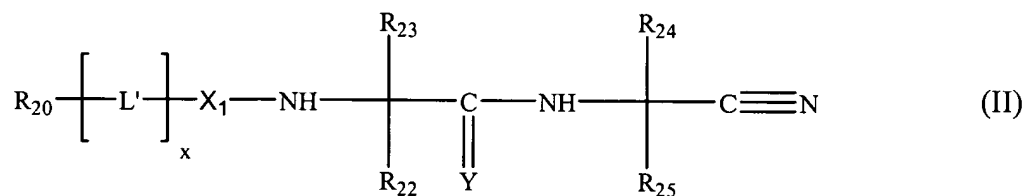
X₁ is -C(O)-;

Y is oxygen; and

x is zero;

or a pharmaceutically acceptable salt thereof.

Claim 22 (New): A compound of formula (II):



wherein

R₂₀ is substituted aryl selected from 4-(morpholin-1-yl)-phen-1-yl, 4-(morpholin-1-yl-methyl)-phen-1-yl, 4-(pyrrolidin-1-yl-methyl)-phen-1-yl, 4-(4-methylpiperazin-1-yl)-phen-1-yl and 4-(piperidinyl)-phenyl;

R₂₂ is hydrogen or lower alkyl and R₂₃ is lower alkyl; or

R₂₂ and R₂₃, together with the carbon atom to which they are attached, form a C₅-C₈ cycloalkyl group or a heterocycloalkyl group of 3-10 ring atoms;

R₂₄ and R₂₅ are, independently, hydrogen or lower alkyl; or

R₂₄ and R₂₅, together with the carbon atom to which they are attached, form a C₃-C₇ cycloalkyl group;

X₁ is -C(O)-;

Y is oxygen; and

x is zero;

Application No.: 10/694,672

or a pharmaceutically acceptable salt thereof.

Claim 23 (New): A compound according to claim 22, wherein R_{22} and R_{23} , together with the carbon to which they are attached, represent a C_6 cycloalkyl group.

Claim 24 (New): A compound according to claim 22, wherein R_{24} and R_{25} are both H or $-CH_3$.

Claim 25 (New): A compound according to claim 22, wherein R_{24} is H and R_{25} is $-CH_2CH(CH_3)_2$.

Claim 26 (New): A method of inhibiting cathepsin activity in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound according to claim 22.

Claim 27 (New): A method of treating a cathepsin-dependent condition in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound according to claim 22.

Claim 28 (New): A method according to claim 27, wherein the condition is selected from inflammation, osteoporosis, rheumatoid arthritis and osteoarthritis.

Claim 29 (New): A method of treating a cathepsin-dependent condition in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound according to claim 23.

Claim 30 (New): A method according to claim 29, wherein the condition is selected from inflammation, osteoporosis, rheumatoid arthritis and osteoarthritis.

Claim 31 (New): A cathepsin-inhibiting pharmaceutical composition comprising a compound according to claim 22 in combination with a pharmaceutically acceptable carrier.

Claim 32 (New): A compound according to claim 22, wherein

X₁ is -C(O)-;

Y is oxygen;

x is zero;

R₂₂ is H;

R₂₃ is -CH₂CH(CH₃)₂; and

(a) R₂₀ is 4-(morpholin-1-ylmethyl)-phen-1-yl; and

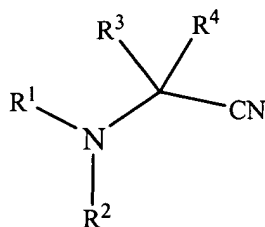
R₂₄ and R₂₅ are H; or

(b) R₂₀ is 4-(pyrrolidin-1-ylmethyl)-phen-1-yl; and

R₂₄ and R₂₅ are H;

or a pharmaceutically acceptable salt thereof.

Claim 33 (New): A compound of the formula:

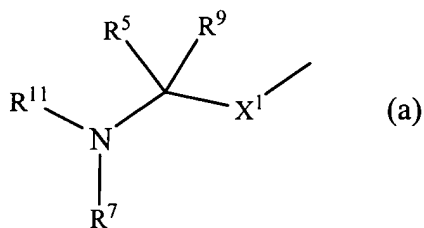


wherein

R² is hydrogen;

R³ and R⁴ are hydrogen;

R¹ is a group of formula (a):



wherein

X¹ is -C(O)-;

R⁵ is hydrogen or lower alkyl;

R⁹ is lower alkyl; or

R⁵ and R⁹ together represent lower alkylene optionally interrupted by O, S or NR⁶,

wherein R⁶ is hydrogen or lower alkyl, so as to form a ring with the carbon atom to which they are attached;

R⁷ is hydrogen; and

R^{11} is $-X^4X^5R^{18}$, wherein X^4 is $-(C=O)-$, X^5 is a bond, O or NH, and R^{18} is phenyl substituted by (a) hetero(C₃-C₁₀)cycloalkyl(C₁-C₄)alkyl or (b) hetero(C₃-C₁₀)cycloalkyl; or a pharmaceutically acceptable salt thereof.

Claim 34 (New): A compound according to claim 33, wherein R^{18} is selected from the group consisting of 4-(morpholin-1-yl)-phen-1-yl, 4-(morpholin-1-ylmethyl)-phen-1-yl, 4-(pyrrolidin-1-ylmethyl)-phen-1-yl, 4-(4-methylpiperazin-1-yl)-phen-1-yl and 4-(piperidinyl)phenyl.

Claim 35 (New): A pharmaceutical composition comprising a therapeutically effective amount of a compound according to claim 33 in combination with a pharmaceutically acceptable excipient.

Claim 36 (New): A method of treating a disease in a mammal in which cathepsin K contributes to the pathology and/or symptomatology of the disease, which method comprises administering to the mammal a therapeutically effective amount of a compound according to claim 33.

Claim 37 (New): A method according to claim 36, wherein the disease is osteoporosis.

Claim 38 (New): A method according to claim 36, wherein the mammal is a human.

Application No.: 10/694,672

Claim 39 (New): A method according to claim 36, wherein the human is a post-menopausal woman.

SUPPORT FOR THE AMENDMENTS

The specification has been amended to correct clerical errors on pages 6, 9, 11, 18, 28, 34, 44, 46, 48, 52 and 86 thereof. It is respectfully submitted that the corrections are self-evident in the context of the application and that no issue of new matter is involved.

The insertion of the omitted "H" on the nitrogen of formulae (II) and (II') on page 6 and 9, respectively, is consistent with its presence in formula (I), of which formula (II) and (II') represent particular embodiments.

The corrections on pages 11, 18, 28 and 46 relate to obvious typographical errors. The correction on page 86 is self-evident in view of the stated effect of the compounds as selective cathepsin L inhibitors.

The corrections on pages 34, 44, 48 and 52 involve correction of an error in the structural formula for compounds 30, 43, 45, 69 and 75. These correspond respectively to compounds 41, 43, 45, 47 and 53 of priority application GB 9723402.4 in which the structural formulae are depicted as corrected herewith (having H on nitrogen). These corrections therefore merely represent a correction of a clerical error in the "structure" assigned to the compounds characterized by the indicated physical properties, and therefore no issue of new matter is involved.

Newly-added claims 21-39 are supported by the specification of the above-identified application as described in the table below.

| <u>Claim</u> | <u>Support in the Specification</u> |
|--------------|---|
| 21 | Page 3 and 4, and the paragraph bridging pages 17 and 18. |
| 22 | Page 6 (bottom) to 9 (top), and the paragraph bridging pages 17 and 18. |
| 23 | Page 8 lines 17 and 18. |

| | |
|----|---|
| 24 | Page 8 line 20. |
| 25 | Page 8 lines 3 and 4 from the bottom. |
| 26 | Page 8 line 3 and claim 16 at page 140. |
| 27 | Claim 19 at page 141. |
| 28 | Page 28 lines 7 and 12-15, and claim 18 at page 141. |
| 29 | Claim 19 at page 141. |
| 30 | Page 28 lines 7 and 12-15, and claim 18 at page 141. |
| 31 | Page 26 lines 18-23; and claim 20 at page 141. |
| 32 | Page 6; page 7, lines 3, 12, 13, and 16; page 8, line 16; and Examples 24 and 25 (page 33). |
| 33 | Page 2 lines 19-21, page 3 lines 1-6, and page 19 lines 1-3 and 5-8. |
| 34 | The paragraph bridging pages 17 and 18. |
| 35 | Page 26 fourth and fifth complete paragraphs. |
| 36 | Page 2 first and second complete paragraphs and page 28 first and second complete paragraphs. |
| 37 | Page 22 line 12. |
| 38 | Page 26 line 20. |
| 39 | Page 22 line 23. |

Claims 21-39 submitted herewith are the same as claims 21-39 submitted in the parent application serial No. 10/342,872 (hereinafter referred to as “the ‘872 application”), with the following exceptions: (a) claim 24 has been amended to delete the comma after “R₂₅”; (b) claim

Application No.: 10/694,672

27 has been amended to recite “the compound as defined in claim 22”; (c) claims 28 and 30 have been amended to recite “wherein the condition is selected from”; (d) claim 33 has been amended to narrow the definition of R¹⁸; (e) claim 34 has been amended to recite proper Markush terminology; and (f) claim 36 has been amended to delete “or a pharmaceutically acceptable salt or ester thereof.”

No new matter is believed to have been added to the application by those amendments.